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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,524	04/01/2004	Teng Pin Poo	P/2778-48	1564

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EXAMINER	
WANG, ALBERT C	

ART UNIT	PAPER NUMBER
2115	

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/815,524	POO, TENG PIN	
	Examiner	Art Unit	
	Albert Wang	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 01 April 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 12/04, 6/05, 3/06.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Original claims 1-20 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 12-16 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Deng et al., U.S. Pub. No. 2003/0005278 (hereinafter "Deng").

As per claim 1, Deng teaches a device having a connector for connecting the device to an interface of a computer system (figs. 1-3, semiconductor storage device with connection cable or connection plug; pars. 0010 & 0029), the device having a storage medium storing an operating system including a boot program (figs. 1-3, storage medium module 1 or flash memory module 11; par. 0014),

wherein the operating system includes a driver to convert an input/output instruction from the operating system to a message that the storage medium understands (pars. 0015 & 0030),

the device being operable, when the device is connected to the interface of a computer system having a RAM memory, to download the operating system directly into the RAM memory of the computer system (par. 0011, operating system is inherently loaded into RAM of the host computer system), and

whereby using the device the operating system can be loaded from the device directly into the RAM memory of a plurality of computer systems (par. 0032, semiconductor storage device can connected to a plurality of computer systems, one at a time, via its connection plug).

As per claim 2, Deng teaches the storage medium is a solid-state non-volatile memory device (par. 0030).

As per claim 3, Deng teaches the solid-state non-volatile memory device is one of a group consisting of a ThumbDrive, a CompactFlash card, a Secure Digital card and a Memory Stick (pars. 0045-0046).

As per claim 4, Deng teaches the storage medium includes a read/write memory for storing user data (par. 0013).

As per claim 5, Deng teaches the interface is one of a group consisting of a Universal Serial Bus (USB), a CompactFlash Input/Output (CF I/O), a Secure Digital Input/Output (SD I/O) or a Memory Stick Input/Output (pars. 0045-0046).

As per claim 12, Deng teaches a computer system comprising:

a Central Processing Unit (figs. 1-3, CPU is inherent in host computer system);

a basic input/output system to instruct the Central Processing Unit (figs. 1-3, BIOS);

an interface coupled to the Central Processing Unit, wherein the interface is to interface an external storage medium where an operating system is stored (figs. 1-3, general-purpose interface module of host computer system; pars. 0011, 0014 & 0029), the operating system including a driver to convert an input/output instruction from the operating system to a message that the external storage medium understands (pars. 0015 & 0030); and

a random access memory coupled to the Central Processing Unit, wherein the random access memory is where the operating system is to be loaded, the computer system being arranged to load the operating system from the external storage medium into the random access memory (par. 0011, operating system is inherently loaded into RAM of the host computer system).

As per claim 13, Deng teaches external storage medium is a solid-state non-volatile memory device (par. 0030).

As per claim 14, Deng teaches the solid-state non-volatile memory device is one of a group consisting of a ThumbDrive, a CompactFlash card, a Secure Digital card and a Memory Stick (pars. 0045-0046).

As per claim 15, Deng teaches the interface is one of a group consisting of a Universal Serial Bus (USB), a CompactFlash Input/Output (CF I/O), a Secure Digital Input/Output (SD I/O) or a Memory Stick Input/Output (pars. 0045-0046).

As per claim 16, Deng teaches the basic input/output system is to locate a boot program based on a boot sequence (par. 0116).

As per claim 20, Deng teaches the driver is to adapt the interface to a Small Computer System Interface (par. 0033).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deng as applied to claims 12 and 16 above, and further in view of Nunn et al., U.S. Patent No. 6,988,194 (hereinafter "Nunn")

As per claim 17, Deng does not expressly teach the external storage medium is a first boot device in the boot sequence. Nunn teaches that selecting boot order by a user is well known in the art (col. 1, lines 51-65). At the time of the invention, it would have been obvious to one of ordinary skill in the art that Deng's boot order may be arbitrarily changed to list an external storage medium at the first boot device, as changing boot order is well known in the art.

As per claim 18, Nunn teaches the boot program is loaded from a subsequent boot device in the boot sequence if the external storage medium is not detected (col. 1, lines 37-50).

As per claim 19, Nunn teaches the boot program is loaded from a subsequent boot device in the boot sequence if the boot program is not available on the external storage medium (col. 1, lines 37-50).

6. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deng et al., U.S. Pub. No. 2003/0005278 (hereinafter "Deng"), in view of Nunn et al., U.S. Patent No. 6,988,194 (hereinafter "Nunn")

As per claim 6, Deng teaches a method to load an operating system, comprising:

locating a boot program based on a booting sequence (par. 0116);

loading the boot program (pars. 0011, 0014 & 0117-0118); and

loading the operating system, the operating system including a driver to convert an input/output instruction from the operating system to a message that the external storage medium understands (pars. 0015, 0030 & 0118).

Deng does not expressly teach an external storage medium is listed as a first boot device in the booting sequence. Nunn teaches that selecting boot order by a user is well known in the art (col. 1, lines 51-65). At the time of the invention, it would have been obvious to one of ordinary skill in the art that Deng's boot order may be arbitrarily changed to list an external storage medium at the first boot device, as changing boot order is well known in the art.

As per claim 7, Deng teaches the external storage medium is a solid-state non-volatile memory device (par. 0030).

As per claim 8, Deng teaches the solid-state non-volatile memory device is one of a group consisting of a ThumbDrive, a CompactFlash card, a Secure Digital card and a Memory Stick (pars. 0045-0046).

As per claim 9, Nunn teaches the boot program is loaded from a subsequent boot device in the boot sequence if the external storage medium is not detected (col. 1, lines 37-50).

As per claim 10, Nunn teaches the boot program is loaded from a subsequent boot device in the boot sequence if the boot program is not available on the external storage medium (col. 1, lines 37-50).

As per claim 11, Deng teaches passing control of a computer system to the operating system (par. 0119).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert Wang whose telephone number is 571-272-3669. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AW

CHUN CAO
PRIMARY EXAMINER